



UL 2043

STANDARD FOR SAFETY

Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces

UL Standard for Safety for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces, UL 2043

Fifth Edition, Dated September 14, 2023

SUMMARY OF TOPICS

This new Fifth Edition of ANSI/UL 2043 dated September 14, 2023 incorporates editorial changes including renumbering and reformatting to align with current style.

The requirements are substantially in accordance with Proposal(s) on this subject dated July 7, 2023.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of ULSE Inc. (ULSE).

ULSE provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will ULSE be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if ULSE or an authorized ULSE representative has been advised of the possibility of such damage. In no event shall ULSE's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold ULSE harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

No Text on This Page

SEPTEMBER 14, 2023



ANSI/UL 2043-2023

1

UL 2043

Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces

First Edition – November, 1992
Second Edition – December, 1996
Third Edition – August, 2008
Fourth Edition – October, 2013

Fifth Edition

September 14, 2023

This ANSI/UL Standard for Safety consists of the Fifth Edition.

The most recent designation of ANSI/UL 2043 as an American National Standard (ANSI) occurred on September 14, 2023. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

Our Standards for Safety are copyrighted by ULSE Inc. Neither a printed nor electronic copy of a Standard should be altered in any way. All of our Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of ULSE Inc.

COPYRIGHT © 2023 ULSE INC.

No Text on This Page

CONTENTS

INTRODUCTION

1	Scope	5
2	Units of Measurement	5
3	Referenced Publications	5

PERFORMANCE

4	Test Equipment and Instrumentation	6
4.1	General	6
4.2	Ignition source	6
4.3	Test frame enclosure	8
4.4	Collection hood and exhaust duct	8
4.5	Velocity measuring instruments	9
4.6	Gas sampling and analysis equipment	10
4.7	Smoke measuring instruments	10
4.8	Data acquisition	10
4.9	Photographic and video equipment	10
5	Pretest Calibration	10
5.1	General	10
5.2	Gas analyzers	11
5.3	Heat release rate	11
5.4	Photometer system	12
6	Test Specimens	12
7	Test Procedure	12
7.1	Initial preparation	12
7.2	Procedure	12
8	Heat Release Calculations	13
8.1	General	13
8.2	Heat release rate	13
8.3	Smoke release rate	13
8.4	Total smoke released	14
9	Report	14
10	Acceptance Criteria	15

ANNEX A (informative) – GUIDE TO MOUNTING METHODS

A1	Introduction	16
A2	Loudspeakers, Loudspeaker Assemblies and Their Accessories	16
A2.1	Test frame enclosure and burner	16
A2.2	Ceiling mounted product	18
A2.3	Suspended in air handling space product	18
A3	Wire Positioning Devices – Plastic Cable Ties	18

ANNEX B (informative) – NORMALIZED OPTICAL DENSITY

B1	General	19
----	---------------	----

No Text on This Page